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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/348,518	07/07/1999	HIROSHI MURAKAMI	31050.5US01	5347

7590 11/27/2002

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EXAMINER
BROADHEAD, BRIAN J

ART UNIT	PAPER NUMBER
3661	

DATE MAILED: 11/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/348,518	MURAKAMI ET AL.	
	Examiner	Art Unit	
	Brian J. Broadhead	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 September 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26-36,39,40 and 42-49* is/are rejected.

7)☒ Claim(s) *37,38 and 41* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. Claim 48 objected to because of the following informalities: It is dependent on a cancelled claim. For examination purposes, it has been assumed that claim 48 is supposed to be dependent on claim 43. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 32 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 32 recites the limitation "the first signal" in line 3. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 36 recites the limitation "the fleet" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 26, 28, 30, 35, 36, 39, 43, and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Tagami et al., 5812070.

8. As per claims 26, 28, 30, 35, and 46, Tagami et al. discloses a sensor installed on the vehicle for sensing the state of charge of at least one battery on line 65, on column 5, through line 5, on column 6; a vehicle subsystem, including a wireless communication unit, installed in the vehicle and operatively coupled to the sensor, for transmitting information reflecting the state of charge of at least one battery on lines 25-30, on column 4; a central station including a computer system in wireless communication with the wireless communication unit for receiving and processing the information regarding the state of charge of the at least one battery including a tracking system that provides vehicle location information corresponding to the location of each vehicle on lines 37-45, on column 4, and lines 2-16, on column 6; the central station comprises a recording device and the processing state of charge information comprises recording state of charge on line 63, on column 5, through line 16, on column 6; a display device installed on the vehicle on lines 64-65, on column 6; a processor operatively coupled to the display device to respond to a first signal from the computer

system to display a first warning message on the display device on lines 14-19, on column 5.

9. As per claim 36, Tagami et al. discloses the central station computer system is further programmed to define a vehicle search group for each port in which one or more vehicles from the fleet may be present at any given time on lines 54-55, on column 5; the central station computer system is programmed to select and allocate a vehicle for a user at a given port from the vehicle search group defined for that port on lines 54-55, on column 5.

10. As per claims 39, 43, Tagami et al. discloses each vehicle comprises an electric powered vehicle having a battery powered source which defines the state of charge of the vehicle on lines 62-65, on column 5; each port includes a charging facility for selectively coupling to a vehicle to increase the state of charge of the vehicle over a charging period on lines 11-16, on column 7; the central station computer system is programmed to process vehicle location information and state of charge information to select a vehicle located at a given port for coupling to the charging facility at that port, based on the state of charge information for the vehicle on lines 11-16, on column 7.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 27 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagami et al., 5812070, in view of Kondo et al., 6181991.

13. Tagami et al. disclose the limitations as set forth above. Tagami et al. does not disclose the central station comprises a display device and the processing state of charge information comprises displaying state of charge information. Kondo et al. teach the central station comprises a display device and the processing state of charge information comprises displaying state of charge information on lines 1-10, on column 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the display device of Kondo et al. in the invention of Tagami et al. because such modification would provide an electric vehicle sharing system which is capable of supplying users efficiently with electric vehicles whose batteries have been appropriately charge as stated on lines 50-51, on column 1, of Kondo et al.

14. Claims 29, 44, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagami et al., 5812070, in view of Kikuchi et al., 6133707.

15. Tagami et al. discloses the limitations as set forth above. Tagami et al. does not disclose comparing a sensed SAE with a previously sensed SAE to generate a first signal in response to a change between the compared SAEs greater than a predefined value. Kikuchi et al. teaches disclose comparing a sensed SAE with a previously sensed SAE to generate a first signal or warning in the vehicle in response to a change between the compared SAEs greater than a predefined value on lines 21-26, on column 2. It would have been obvious to one of ordinary skill in the art at the time the invention

was made to use the comparing of Kikuchi et al. in the invention of Tagami et al. because it would warn of abnormal operations.

16. Claims 31-34, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagami et al., 5812070, in view of Tabata et al., 5908453.

17. Tagami et al. discloses the limitations as set forth above. Tagami et al. do not disclose determining when the SAE is greater than a predetermined value and generating a second signal in response to the sensed SAE being less than a predefined minimum and then displaying a warning message on the vehicle display device. Tabata et al. teaches determining when the SAE is greater than a predetermined value and generating a second signal in response to the sensed SAE being less than a predefined minimum and then displaying a warning message on the vehicle display device on lines 25-32, on column 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the warning of Tabata et al. in the invention of Tagami et al. because such modification would provide more useful features to an SAE system.

18. Claims 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagami et al., 5812070, in view of Henze et al., 5803215.

Tagami et al. disclose all the limitations as set forth above. Tagami et al. do not disclose the central computer system determines a charging order for a plurality of vehicles located at a port based on the stored amount of energy of each vehicle in the plurality of vehicles; and said charging facility defines a charging rate for each vehicle as the vehicles increasing SOC over the charging period and wherein the plot of the

charging rate of each vehicle includes a generally linear region and a nonlinear section and assigning vehicles to charger if SOC of the vehicle is in the linear region. Henze et al. teaches of the central computer system determines a charging order for a plurality of vehicles located at a port based on the stored amount of energy of each vehicle in the plurality of vehicles on lines 35-49, on column 2; and said charging facility defines a charging rate for each vehicle as the vehicles increasing SOC over the charging period and wherein the plot of the charging rate of each vehicle includes a generally linear region and a nonlinear section and assigning vehicles to charger if SOC of the vehicle is in the linear region on lines 62-65, on column 5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the charging system of Henze et al. in the invention of Tagami et al. because such modification would provide a system that would charge the batteries of the cars and protect them from overcharging.

Allowable Subject Matter

19. Claims 37, 38, and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose the central station computer system is further programmed to process vehicle location information for a vehicle due to arrive at a given port, to provide an estimated time of arrival of the vehicle at that port and for including the vehicle in the vehicle search group for that port if the estimated time of arrival is within a predefined time period; including in vehicle search group of a given

port the vehicle at a charging facility at the port if the vehicle has a charging time period which is due to expire within a predefined time period; and the charging order of the vehicles is based on the current stored amount of energy, with the lowest being charged first and the highest last.

Response to Arguments

21. Applicant's arguments with respect to claims 26-49 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues that their invention requires multiple ports but does not claim multiple ports.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 703-308-9033. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A. Cuchlinski can be reached on 703-308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

BJB
November 21, 2002